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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,367	08/15/2003	Richard H. Schlosberg	2001B052A/2	2531

23455 7590 01/10/2008  
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EXAMINER
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STOCKTON, LAURA LYNNE

ART UNIT	PAPER NUMBER
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1626

MAIL DATE	DELIVERY MODE
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01/10/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/642,367	SCHLOSBERG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Laura L. Stockton, Ph.D.	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-15,17-26,28-39,41-46 and 49-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-15,17-26,28-39,41-46 and 49-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to:
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

Claims 1, 2, 4-15, 17-26, 28-39, 41-46 and 49-57  
are pending in the application.

***Response to Amendment***

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. The Amendment filed December 19, 2007 has been entered.

***Election/Restrictions***

Applicant's election with traverse of Group I, directed to a process of making (claims 1-46), in the reply filed on January 12, 2006 was acknowledged in a previous Office Action. The requirement was deemed proper and therefore made FINAL in a previous Office Action.

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Claims 47 and 48 were withdrawn (now cancelled) from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention. Applicant timely traversed the restriction (election) requirement in the reply filed on January 12, 2006.

Applicant has provided evidence in this file showing that the invention was owned by, or subject to an obligation of assignment to, the same entity as Buchanan et al. {U.S. Pat. 6,407,279} at the time this invention was made, or was subject to a joint research agreement at the time this invention was made. Therefore, Buchanan et al. has been disqualified as prior art.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 49 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 49 is indefinite because of the phrase "a chloride concentration of about 5 ppm or less" when there does not appear that any of the reactants, catalyst of final product has chloride.

Applicant's arguments with respect to claims 1, 2, 4-15, 17-26, 28-39, 41-46 and 50-57 have been considered but are moot in view of the new ground(s) of rejection.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-15, 17-26, 28-39, 41-46 and 50-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pacheco et al. {U.S. Pat. 5,489,703} in view of the combination of teachings in Emmons et al. {U.S. Pat. 3,535,341}, McClellan {U.S. Pat. 2,873,282}, Masahiro et al. {JP 63-238043}, Haruyuki et al. {JP 03-109358} and Tojo et al. {U.S. Pat. 5,847,189}.

***Determination of the scope and content of the prior art (MPEP §2141.01)***

Applicant claims a process of making dialkyl carbonate and a diol from alkylene oxide, carbon

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dioxide and an aliphatic monohydric alcohol comprising (a) reacting an alkylene oxide with carbon dioxide in the presence of a carbonation catalyst selected from carbonates and bicarbonates of quaternary ammonium bases to provide a crude cyclic carbonate and (b) reacting said cyclic carbonate with an aliphatic monohydric alcohol in the presence of a catalyst.

Pacheco et al. (see entire reference and especially columns 7, 9 and 10) teach a process of making dialkyl carbonate and a diol from alkylene oxide, carbon dioxide and an aliphatic monohydric alcohol in the presence of quaternary ammonium compounds for each step.

***Ascertainment of the difference between the prior art and the claims***

***(MPEP §2141.02)***

The difference between the process of Pacheco et al. and the process instantly claimed is that Pacheco et al. generically describe the instant quaternary

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ammonium catalysts for each of the claimed steps (a) and (b).

However, Emmons et al. (column 1, lines 35-53) and McClellan (columns 1 and 2) each teach that it is known to use quaternary ammonium compounds as catalysts in processes of making alkylene carbonates (Applicant's cyclic carbonate produced in step a). Additionally, Masahiro et al. (see abstract), Haruyuki et al. (see abstract) and Tojo et al. (see entire document; especially Example 1 in columns 35-36) each teach that it is known to use quaternary ammonium compounds as catalysts in processes of making a dialkyl carbonate and a diol from reacting a cyclic carbonate and an alcohol (Applicant's dialkyl carbonate and diol produced in step b).

***Finding of prima facie obviousness--rational and motivation (MPEP***

***§2142-2413)***

The claimed process is no more than a selective combination of prior art teachings done in a manner



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obvious to one of ordinary skill in the art since each step of the process appears to be relatively complete in itself and there is no indication of an interaction between steps of such a type that would lead one of ordinary skill in the art to doubt that a substitution of alternative steps known to the art could be made.

In re Mostovych, 144 USPQ 38 (1964).

One skilled in the art would have been motivated to utilize the process taught by Pacheco et al., especially in view of the teachings in Emmons et al., McClellan, Masahiro et al., Haruyuki et al. and Tojo et al., to arrive at the instant claimed process with the expectation of obtaining a dialkyl carbonate and a diol. Therefore, the instant claimed process would have been suggested to one skilled in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura L. Stockton whose telephone number is (571) 272-0710. The examiner can normally be reached

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on Monday-Friday from 6:15 am to 2:45 pm. If the examiner is out of the Office, the examiner's supervisor, Joseph McKane, can be reached on (571) 272-0699.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

The Official fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



Laura L. Stockton, Ph.D.

Patent Examiner

Art Unit 1626, Group 1620

Technology Center 1600

January 8, 2008